Amdt. dated March 28, 2008

Reply to Final Office action of Jan. 2, 2008

**AMENDMENTS TO THE CLAIMS** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

**Listing of Claims:** 

Claims 1-11. (Canceled)

12. (Currently amended) A method for applying an electrical insulation to a ferromagnetic

body of a primary element of an electrical machine, which ferromagnetic body is provided

with axial slots for receiving an electrical winding, which axial slots form a Faraday cage

whose field-free space can be coated only with difficulty, of a primary element of an

electrical machine, in which the body is coated with electrostatically charged plastic powder, the

method comprising applying a powder coating having a layer thickness of between about 1.0 and

2.0 mm by means of direct powder spraying onto the body while maintaining a potential

difference between the body and the powder, and further characterized in that for the powder

spraying, a coarse plastic powder is used, whose powder particles have a mean diameter greater

than 150 µm as a result of which sufficient particles can penetrate into the axial slots in

order to create a layer, including within the axial slots, of between 1.0 and 2.0 mm.

Page 2 of 12

Amdt. dated March 28, 2008

Reply to Final Office action of Jan. 2, 2008

13. (Previously presented) The method as defined by claim 12, wherein the coating is done on

the body while it has a lower potential than the plastic powder.

Claims 14-15. (Canceled)

16. (Previously presented) The method as defined by claim 12, wherein the powder spraying

is performed with compressed air.

17. (Previously presented) The method as defined by claim 13, wherein the powder spraying

is performed with compressed air.

18. (Previously presented) The method as defined by claim 12, wherein the powder spraying

is performed in a closed spraying chamber with an electrostatic spray apparatus which is

equipped with at least one spray location aimed at the body.

19. (Previously presented) The method as defined by claim 13, wherein the powder spraying

is performed in a closed spraying chamber with an electrostatic spray apparatus which is

equipped with at least one spray location aimed at the body.

Page 3 of 12

Amdt. dated March 28, 2008

Reply to Final Office action of Jan. 2, 2008

20. (Previously presented) The method as defined by claim 16, wherein the powder spraying

is performed in a closed spraying chamber with an electrostatic spray apparatus which is

equipped with at least one spray location aimed at the body.

21. (Previously presented) The method as defined by claim 18, further comprising the steps

of removing the plastic powder from a powder supply by means of suction, and delivering a

metered quantity of powder to the spray apparatus by means of compressed air.

22. (Previously presented) The method as defined by claim 12, further comprising the step of

subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal

of powder adhering to surfaces of the body where a coating of the powder is not wanted.

23. (Previously presented) The method as defined by claim 13, further comprising the step of

subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal

of powder adhering to surfaces of the body where a coating of the powder is not wanted.

24. (Previously presented) The method as defined by claim 18, further comprising the step of

subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal

of powder adhering to surfaces of the body where a coating of the powder is not wanted.

Page 4 of 12

Amdt. dated March 28, 2008

Reply to Final Office action of Jan. 2, 2008

25. (Previously presented) The method as defined by claim 21, further comprising the step of

subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal

of powder adhering to surfaces of the body where a coating of the powder is not wanted.

26. (Previously presented) The method as defined by claim 22, wherein the coated and cleaned

body is subjected to a heating process that causes the firing of the powder coating.

27. (Previously presented) The method as defined by claim 26, further comprising the steps

of cooling the body after the heating process.

28. (Currently amended) An apparatus for performing the method which includes applying

an electrical insulation to a ferromagnetic body of a primary element of an electrical machine,

which ferromagnetic body is provided with axial slots for receiving an electrical winding,

which axial slots form a Faraday cage whose field-free space can be coated only with

difficulty, of a primary element of an electrical machine, in which the body is coated with

electrostatically charged plastic powder, the method comprising applying a powder coating

having a layer thickness of between about 1.0 and 2.0 mm by means of direct powder spraying

onto the body while maintaining a potential difference between the body and the powder,

wherein the powder spraying is performed in a closed spraying chamber with an electrostatic

spray apparatus which is equipped with at least one spray location aimed at the body and further

Page 5 of 12

comprising the steps of removing the plastic powder from a powder supply by means of suction,

and delivering a metered quantity of powder to the spray apparatus by means of compressed air,

the apparatus comprising a spraying chamber, a conveyor belt penetrating the spraying chamber

and carrying the body, a spray apparatus in the spray chamber with at least one spray location,

a metering device upstream of the spray apparatus, a powder bin, and a pneumatic powder

conveyor which aspirates powder from the powder bin and delivers it to the metering device

wherein the powder particles have a mean diameter greater than 150 µm as a result of

which sufficient particles can penetrate into the axial slots in order to create a layer,

including within the axial slots, of between 1.0 and 2.0 mm.

Claims 29-31. (Canceled)

32. (Previously presented) The apparatus as defined by claim 28, wherein said powder bin and

and spraying chamber are integrated into a common housing.

33. (Currently amended) A method for applying an electrical insulation to a ferromagnetic

body of a primary element of an electrical machine, which ferromagnetic body is provided

with axial slots for receiving an electrical winding, which axial slots form a Faraday cage

whose field-free space can be coated only with difficulty, of a primary element of an

electrical machine, in which the body, including within the axial slots, is coated with

Page 6 of 12

Amdt. dated March 28, 2008

Reply to Final Office action of Jan. 2, 2008

electrostatically charged plastic powder, the method comprising applying a powder coating

having a layer thickness of between about 1.0 and 2.0 mm within the axial slots by means of

direct powder spraying onto the body, including within the axial slots, while maintaining a

potential difference between the body and the powder, and further characterized in that for the

powder spraying, a coarse plastic powder is used, whose powder particles have a mean diameter

greater than 150 µm so that sufficient particles can penetrate into the axial slots in order to

create a layer, including within the axial slots, of between 1.0 and 2.0 mm.